

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

#### LISTING OF CLAIMS:

1. (Canceled)

2. (Currently Amended) The method as recited in Claim ~~16~~, wherein said selecting characteristics step further comprises the steps of:

receiving a first user input, wherein said first user input comprises information identifying an item to be auctioned;

accessing a database;

retrieving from said database historical bids data;

retrieving from said database auction characteristics data, wherein said auction characteristics comprise information relating to historical auctions of similar items;

outputting said bids data; and

outputting said auction characteristics data.

3. (Currently Amended) The method as recited in Claim ~~16~~, wherein said selecting a relevant bidding model step further comprises the steps of:

receiving said auction characteristics data;

accessing a database;

retrieving from said database a relevant bidding model, wherein said bidding model is selected based on a corresponding relevance of said auction characteristics data; and

outputting said relevant bidding model.

4. (Currently Amended) The method as recited in Claim ~~16~~, wherein said estimating step further comprises the steps of:

receiving said relevant bidding model;

receiving said bids data;

expressing unobservable variables in terms of observable bids, ~~wherein said expressing said unobservable variables are expressed in terms of observable bids by inverting said bid model;~~

~~transforming said bids data to a sample of inverted bids, wherein said bids data are transformed by inverting said bid model;~~

estimating an estimated latent structure of said market, wherein said estimating comprises ~~sample of inverted bids receives~~ application of statistical density estimation techniques to obtain said estimated structure; and

outputting said estimated structure.

5. (Currently Amended) The method as recited in Claim ~~16~~, wherein said bidding model has embedded an unknown structure, and wherein said predicting a bidding behavior step further comprises the steps of:

receiving said estimated structure;

receiving said relevant bidding model;

substituting said estimated structure for said unknown structure; and

outputting a prediction of bidding behavior.

6. (Currently Amended) ~~The method as recited in Claim 1, wherein said predicting a first outcome step further comprises the steps of~~ A method for determining a reserve price for a market, said method comprising the steps of:

selecting characteristics of said market;

selecting a relevant bidding model;

estimating a structure of said market;  
predicting a bidding behavior;  
predicting a first outcome of said market; wherein said predicting a first outcome  
comprises the steps of:

- receiving a second user input, wherein said second user input comprises:
  - an evaluation criterion;
  - a candidate reserve price; and
  - a constraint;
- receiving said estimated structure;
- receiving said bidding behavior prediction for said candidate reserve price,  
wherein said bidding behavior prediction further comprises a prediction under said constraint;
- obtaining a value of said evaluation criterion, wherein said value is based on said  
estimated structure, said bidding behavior prediction, said candidate reserve price, and said  
constraint, said value comprising said first predicted outcome; and
- outputting said value; and  
evaluating said first outcome of said market.

7. (Currently Amended) The method as recited in Claim 16, wherein said evaluating said first outcome step further comprises the steps of:

- receiving a third user input, wherein said third user input comprises a plurality of candidate reserve prices;
- receiving a predicted outcome for each said candidate reserve price;
- calculating descriptive statistics for each said candidate reserve price, wherein said descriptive statistics comprise a mean and a variance;
- ranking each said candidate reserve price with respect to said calculated mean and generating corresponding rankings for said plurality; and
- outputting said descriptive statistics and said rankings.

8. (Original) The method as recited in Claim 7, further comprising the steps of:  
selecting a best reserve price, wherein said best reserve price comprises the candidate  
reserve price within said plurality having the highest said ranking; and  
outputting said best reserve price.

9. (Canceled)

10. (Currently Amended) The system as recited in Claim 914, wherein said selecting  
characteristics step of said method further comprises the steps of:  
receiving a first user input, wherein said first user input comprises information  
identifying an item to be auctioned;  
accessing a database;  
retrieving from said database historical bids data;  
retrieving from said database auction characteristics data, wherein said auction  
characteristics comprise information relating to historical auctions of similar items;  
outputting said bids data; and  
outputting said auction characteristics data.

11. (Currently Amended) The system as recited in Claim 914, wherein said selecting a  
relevant bidding model step of said method further comprises the steps of:  
receiving said auction characteristics data;  
accessing a database;  
retrieving from said database a relevant bidding model, wherein said bidding model is  
selected based on a corresponding relevance of said auction characteristics data; and  
outputting said relevant bidding model.

12. (Currently Amended) The system as recited in Claim 914, wherein said estimating step of said method further comprises the steps of:

- receiving said relevant bidding model;
- receiving said bids data;
- expressing unobservable variables in terms of observable bids, ~~wherein said unobservable variables are expressed in terms of observable bids by inverting said bid model;~~
- ~~transforming said bids data to a sample of inverted bids, wherein said bids data are transformed by inverting said bid model;~~
- estimating an estimated latent structure of said market, wherein said estimating comprises ~~sample of inverted bids receives~~ application of statistical density estimation techniques to obtain said estimated structure; and
- outputting said estimated structure.

13. (Currently Amended) The system as recited in Claim 914, wherein said bidding model has embedded an unknown structure, and wherein said predicting a bidding behavior step of said method further comprises the steps of:

- receiving said estimated structure;
- receiving said relevant bidding model;
- substituting said estimated structure for said unknown structure; and
- outputting a prediction of bidding behavior.

14. (Currently Amended) ~~The system as recited in Claim 9, wherein said predicting a first outcome step of said method further comprises the steps of~~ A computer system comprising:

- a bus;
- a memory interconnected with said bus; and
- a processor interconnected with said bus, wherein said processor executes a method for determining a reserve price for a market, said method comprising the steps of:

selecting characteristics of said market;  
selecting a relevant bidding model;  
estimating a structure of said market;  
predicting a bidding behavior;  
predicting a first outcome of said market, wherein said predicting a first outcome  
comprises the steps of:

- receiving a second user input, wherein said second user input comprises:
  - an evaluation criterion;
  - a candidate reserve price; and
  - a constraint;
- receiving said estimated structure;
- receiving said bidding behavior prediction for said candidate reserve price,  
wherein said bidding behavior prediction further comprises a prediction under said constraint;
- obtaining a value of said evaluation criterion, wherein said value is based on said  
estimated structure, said bidding behavior prediction, said candidate reserve price, and said  
constraint, said value comprising said first predicted outcome; and
- outputting said value; and
- evaluating said first outcome of said market.

15. (Currently Amended) The system as recited in Claim 9<sup>14</sup>, wherein said evaluating  
said first outcome step of said method further comprises the steps of:

- receiving a third user input, wherein said third user input comprises a plurality of  
candidate reserve prices;
- receiving a predicted outcome for each said candidate reserve price;
- calculating descriptive statistics for each said candidate reserve price, wherein said  
descriptive statistics comprise a mean and a variance;

ranking each said candidate reserve price with respect to said calculated mean and generating corresponding rankings for said plurality; and  
outputting said descriptive statistics and said rankings.

16. (Currently Amended) The system as recited in Claim 915, wherein said evaluating said first outcome step of said method further comprises the steps of:

selecting a best reserve price, wherein said best reserve price comprises the candidate reserve price within said plurality having the highest said ranking; and  
outputting said best reserve price.

17. (Canceled)

18. (Currently Amended) The computer readable medium as recited in Claim 4722, wherein said selecting characteristics step of said method further comprises the steps of:

receiving a first user input, wherein said first user input comprises information identifying an item to be auctioned;  
accessing a database;  
retrieving from said database historical bids data;  
retrieving from said database auction characteristics data, wherein said auction characteristics comprise information relating to historical auctions of similar items;  
outputting said bids data; and  
outputting said auction characteristics data.

19. (Currently Amended) The computer readable medium as recited in Claim 4722, wherein said selecting a relevant bidding model step of said method further comprises the steps of:

receiving said auction characteristics data;

accessing a database;  
retrieving from said database a relevant bidding model, wherein said bidding model is selected based on a corresponding relevance of said auction characteristics data; and  
outputting said relevant bidding model.

20. (Currently Amended) The computer readable medium as recited in Claim 1722, wherein said estimating step of said method further comprises the steps of:  
receiving said relevant bidding model;  
receiving said bids data;  
expressing unobservable variables in terms of observable bids, ~~wherein said unobservable variables are expressed in terms of observable bids by inverting said bid model;~~  
~~transforming said bids data to a sample of inverted bids, wherein said bids data are transformed by inverting said bid model;~~  
estimating an estimated latent structure of said market, wherein said estimating comprises ~~sample of inverted bids receives~~ application of statistical density estimation techniques to obtain said estimated structure; and  
outputting said estimated structure.

21. (Currently Amended) The computer readable medium as recited in Claim 1722, wherein said bidding model has embedded an unknown structure, and wherein said predicting a bidding behavior step of said method further comprises the steps of:  
receiving said estimated structure;  
receiving said relevant bidding model;  
substituting said estimated structure for said unknown structure; and  
outputting a prediction of bidding behavior.

22. (Currently Amended) ~~The computer readable medium as recited in Claim 17,~~  
~~wherein said predicting a first outcome step of said method further comprises the steps of A~~  
computer readable medium for causing a computer system to execute the steps in a method for  
determining a reserve price for a market, said method comprising the steps of:

selecting characteristics of said market;

selecting a relevant bidding model;

estimating a structure of said market;

predicting a bidding behavior;

predicting a first outcome of said market, wherein said predicting a first outcome of said  
market comprises the steps of:

receiving a second user input, wherein said second user input comprises:

an evaluation criterion;

a candidate reserve price; and

a constraint;

receiving said estimated structure;

receiving said bidding behavior prediction for said candidate reserve price,

wherein said bidding behavior prediction further comprises a prediction under said constraint;

obtaining a value of said evaluation criterion, wherein said value is based on said  
estimated structure, said bidding behavior prediction, said candidate reserve price, and said  
constraint, said value comprising said first predicted outcome; and

outputting said value; and

evaluating said first outcome of said market.

23. (Currently Amended) The computer readable medium as recited in Claim ~~17~~22,  
wherein said evaluating said first outcome step of said method further comprises the steps of:

receiving a third user input, wherein said third user input comprises a plurality of  
candidate reserve prices;

receiving a predicted outcome for each said candidate reserve price;  
calculating descriptive statistics for each said candidate reserve price, wherein said descriptive statistics comprise a mean and a variance;  
ranking each said candidate reserve price with respect to said calculated mean and generating corresponding rankings for said plurality; and  
outputting said descriptive statistics and said rankings.

24. (Currently Amended) The computer readable medium as recited in Claim ~~17~~23, wherein said evaluating said first outcome step of said method further comprises the steps of:  
selecting a best reserve price, wherein said best reserve price comprises the candidate reserve price within said plurality having the highest said ranking; and  
outputting said best reserve price.